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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,471	11/08/2001	Brian M. Curtis	2000P09041US01	4366

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SIEMENS CORPORATION  
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EXAMINER

LIEU, JULIE BICHNGOC

ART UNIT PAPER NUMBER

2636

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/010,471

Applicant(s)

CURTIS ET AL.

Examiner

Julie Lieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-39, 43, 46-52 and 55-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This Office action is in response to amendment filed February 27, 04. Claim 21, 27, 29, 31, 32, and 49-59 have been amended. Claim 26 has been canceled. No new claims have been added.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 102***

3. Claims 36 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Pramler (GB 2,343,953) (submitted by the applicant).

Claim 36:

Pramler discloses a weight sensor assembly for measuring a weight on a vehicle seat comprising:

- a. A bending beam 13 having a first connection portion 14 engageable with an upper seat structure and a second connection portion 16 engageable with a lower seat structure;
- b. A bendable central body portion 15 coplanar with and extending between the first and a second connection portions, the central body portion having a narrowing neck to concentrate strain in the central body portion;
- c. A strain gage assembly 33-37 mounted directly to the narrowing neck for measuring the strain at the central body portion resulting from a weight force being exerted against the upper seat structure.

Claim 43:

The first connecting portion 14 provides sole connection of the bending beam to the seat support member 17 and the second connecting portion provides sole connection of the bending beam to the seat element 6. See figure 1.

4. Claims 46-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pramler (GB 2,343,953) (submitted by the applicant).

Claim 46:

Pramler discloses a weight sensor assembly for measuring a weight on a vehicle seat comprising:

- a. Bending beam 13 having a first connection portion 14 engageable with an upper seat structure and a second connection portion 16 engageable with a lower seat structure
- b. A bendable central body portion 15 coplanar with and extending between the first and a second connection portions, the central body portion having a narrowing neck to concentrate strain in the central body portion;
- c. A strain gage assembly 33-37 applied directly to the central body portion for measuring the strain at the central body portion resulting from a weight force being exerted against the upper seat structure.

The examiner takes official notice that because the use of thick-film strain gage is conventional in the art; therefore, it would have been obvious to one skilled in the art to use thick film strain gage in the device of Pramler because it is conventional.

Claims 47-50:

The system in Pramler inherently includes an electrical component for communicating the weight signal to the control unit. Plurality of traces interconnecting the electrical component and the sensor assembly, in

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particular thick film strain gages are conventional in the art. Also screen-printing of thick film to form strain gage and its associated circuit is very conventional in the art.

Claim 51:

The use of full bridge strain gage as pressure sensor is conventional in the art. Thus, it would have been obvious to one skilled in the art, by the time the invention was made, to use full bridge strain gage as a sensor assembly in Pramler because it is old in the art.

Claim 52:

It is inherent that the Pramler system includes an electrical connector cooperating with the electrical component to communicate with the weight signal to control unit.

Claim 54:

The central body portion is coplanar with the first and second connection portions and includes a narrowing neck 15 to concentrate stain in the central body portion.

Claim 55:

The first connecting portion 14 provides sole connection of the bending beam to the seat support member 17 and the second connecting portion provides sole connection of the bending beam to the seat element 6. See figure 1.

Claims 56-58:

The rejection of claims 56-58 recite the same rejection of claims 46-50, except they are method claims.

Claim 59:

Though not shown in the reference, it would have been obvious to one skilled in the art to provide a protective cover for the electrical component because it would be desirable to protect it from the surrounding environment such as dust, water, etc... which could cause malfunction of the device.

*Applicant's Remarks*

5. Applicant's arguments filed 2/17/04 have been fully considered but they are not persuasive.

Argument 1:

Regarding claims 46-48, 50-52, and 54, the applicant challenges the examiner to provide references to show the claimed features.

*Response to applicant's Remarks*

Response to argument 1:

Regarding claims 46, 48, 49, and 51 refer to Haynes et al. (US Patent 6,559,392) for example of thick film strain gauges used as weight sensor in a seat.

Regarding claim 47, the claimed traces of interconnecting component and sensor assembly can be found in any electronic circuit and a skilled artisan would have readily recognized that electrical traces for interconnecting electronics are inherent, otherwise how are those strain gages connected to the rest of the circuit to provide signal? Electronic traces in electronic circuits to connect electronic components together are old and so conventional in the art that they are not necessarily discussed in any reference; therefore, no reference is deemed to be necessary to show this feature.

Regarding claims 50 and 52, refer to Oestreicher et al. (US Patent 6,070,115) whose reference teaches full-bridge strain gage used as seat sensor.

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Regarding claim 54, coplanar means the same plane. The three planes 14, 15, and 16 in Pramler are parallel to one another, specifically, plane 14 is parallel to plane 15, which in turn is parallel to plane 16, therefore, they are coplanar because all there are on the same plane.

*Allowable Subject Matter*

6. Claims 21-35 are allowed.

7. Claims 40, 42, 44, 45, and 53 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 703-308-6738. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Hofsass can be reached on 703-305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Julie Lieu', with a long, sweeping horizontal stroke extending to the right.

Julie Lieu  
Primary Examiner  
Art Unit 2636

May 14, 04